

Volume VII , Section 1 - COD School Testing Guide

Introduction

The School Testing Guide is intended for all participants in the COD System. This includes both Phase-In and Full Participants.

Included in this year's version of the School Testing Guide are lessons learned from the 2003-2004 Award Year of COD School Testing. This section provides insight from the schools that participated in COD school testing. Schools were both Phase-In and Full Participants.

Purpose

The purpose of school testing is to provide schools, third-party servicers, and software vendors an opportunity to test business processes and system software with the COD System prior to the transmission and processing of actual production data. School Testing enables simpler, faster, and less costly issue identification and resolution in a low-volume, controlled test environment. It also allows schools, third-party servicers, and software vendors the opportunity to make corrections or enhancements to software applications and processes prior to entering into the “live” production environment. The goal of School Testing is to make the transmission of production data smoother and reduce the risk of production problems.

Note: Throughout this document, the term “schools” is used to indicate any entity that is participating in COD School Testing and includes schools as well as entities that process on behalf of schools (such as software vendors and third-party servicers).

Scope

COD School Testing is broken down into two distinct phases of testing:

- Phase I – Common Record Manual Verification (Full Participants only)
- Phase II – Structured Application Testing (All participants)

The phases are described in more detail later in this document.

COD School Testing is available to all entities that participate in the COD process, including both Full and Phase-In Participants.

Full Participant schools are not required to test with COD, but are encouraged to participate in Phase I testing. Full Participant schools should refer to the *Section 2-Full Participant School Test Case* document for more information. The test case document contains descriptions of the test data that schools will send to and from COD, test execution guidelines, and structured test cases with multiple testing cycles.

Phase-In schools are not required to test with COD, but have the option to participate in this testing. Phase-In Schools should refer to the *Section 3-Phase-In Participant School Test Case* document for more information. The test case document contains descriptions of the test data sent to and from the schools to COD, test execution guidelines, and structured test cases with multiple testing cycles.

Schools that are either Full Participant and/or Phase-In that use a third-party servicer/software vendor do not need to test with COD. Instead, the third-party servicer/software vendor can complete the test on behalf of their customers. Schools are encouraged to contact their third-party service/software vendor to confirm their testing plans.

Schools that are new participants of the Direct Loan and/or Pell Grant Programs must complete school testing with COD before submitting data into the production environment.

All entities that wish to participate in COD School Testing must submit a formal signup document to the COD School Relations Center and be scheduled for each phase of testing. The signup document is located at the end of the School Testing Guide and is also available on the COD web site.

Test Phase Descriptions

Phase I - Common Record Manual Verification

1. Who should participate?

The Common Record Manual Verification phase of testing is available to those schools that will be submitting test records in the XML Common Record format.

2. What is the purpose of Phase I testing?

The purpose of the Common Record Manual Verification testing is to ensure that the school's XML Common Record is well formed and properly structured according to the rules of the 2.0d XML Common Record Schema. The 2.0d schema is available on the IFAP web site at: <http://www.ifap.ed.gov/cod/COD0405CRXMLSchema20d.html>. The COD team manually reviews a Common Record document emailed to the COD School Relations Center by the school and assists the school in the identification of potential updates to their Common Record submissions. For this phase of testing, only two student records should be sent in the Common Record.

3. When does Phase I testing take place?

Phase I testing is available from **January 2004 through May 2004**. Phase I testing is required for Full Participants prior to participating in Phase II testing.

4. How do schools sign up for Phase I testing?

Full Participant schools must complete a signup document in order to participate and schedule a testing window with the COD School Relations Center. The signup document is located at the end of this guide. The completed document must be emailed or faxed to the COD School Relations Center.

5. What do schools need to do when they complete Phase I testing?

Once Full Participant schools have completed Phase I of testing, they must contact the COD School Relations Center via email to schedule Phase II testing. A second signup document is not required to participate in Phase II testing.

Phase II - Structured Application Testing

1. Who should participate?

Both COD Full Participant and Phase-In Participants are eligible to participate in this testing phase. Full Participant schools need to complete Phase I testing before they can participate in Phase II testing.

2. What is the purpose of Phase II Testing?

The purpose of Phase II-Structured Application Testing is to ensure that schools can send, receive, and process batches of records using comprehensive input instructions with detailed expected results issued by COD. Schools use a test ISIR file supplied by COD that creates a test data set of students to use with the structured test cases.

During this phase, Full Participants send Common Record documents to COD and receive Common Record receipts and response documents back from COD. Phase-In Participants send fixed-length, flat files to COD and receive acknowledgements in fixed-length file format back from COD. Schools must verify that these files can be loaded and processed correctly in their system.

3. When does Phase II testing take place?

Phase II testing assists schools in the identification of potential updates to their system before beginning actual processing for 2004-2005. Phase II is available from **mid-March 2004 through June 2004**. This testing phase is optional.

4. How do schools sign up for Phase II testing?

Schools must complete a signup document in order to participate and schedule a testing window with the COD School Relations Center. The signup document is located at the end of this guide. The completed document must be emailed or faxed to the COD School Relations Center.

Note: Full Participant Schools that participated in Phase I testing do not need to complete a second signup document, but must schedule a second testing window with the COD School Relations Center.

5. What do schools need to do when they complete Phase II testing?

Schools should notify the COD School Relations Center via email when they have completed testing. This will ensure that other schools can begin their testing process in a timely fashion. Also, COD School Testing team will be prepared to monitor the first “live” batch in the production environment.

6. What do schools do when they are ready to submit their first “live” batch?

Schools should notify the COD School Testing team prior to submitting their first “live” batch into the production environment. The School Testing team will ensure the batch processes successfully. Upon a successful submission of a batch, the School Testing team will hand over the school to the primary representative.

Testing Criteria

Test Entry Criteria

In order to begin testing with COD, schools need to complete the following steps:

- Complete a COD School Testing signup document. This is located at the end of this document. Upon completion this needs to be submitted to the COD School Relations Center no later than the assigned signup deadline of May 1, 2004.
- Schedule individual testing date(s) specific for your school(s) for each testing phase. COD School Relations will contact you via email after the signup document is received.
- Receive a testing Routing ID. The COD School Relations Center will provide this information to you.

Note: A new test Routing ID is assigned for testing for Full Participants of COD only. Vendors will test using a COD Routing IDs for testing purposes only.

- Confirm your test plans and COD readiness. Contact COD School Relations when you are ready to submit.
- Install the latest version of the message class table from SAIG.
- Install and implement the 2004-2005 updates to the software applications.
- Develop a means of keeping testing data segregated from production environment.
- Identify individuals at the school responsible for completing the COD School Testing process and exchange names with COD School Testing team.
- Develop a means of forward dating school's test environment.
- Complete Phase I Common Record Manual Verification Testing, for Full Participant schools only, prior to beginning Phase II Structure Application Testing

Test Exit Criteria

The school and the COD School Relations Center should jointly determine when the school has successfully completed COD School Testing. The school can select which processes to test and should continue testing until expected results are received. Once the expected results are received, the school can consider testing successful. There is no pre-defined “end” of the test, other than the published end dates for each phase of COD School Testing.

School testing is complete when:

- School determines that they have been able to satisfactorily complete the desired test scenarios and have achieved the expected results.
- School chooses to discontinue testing prior to completing all the desired test scenarios if the expected results have been achieved.
- Contact the COD School Relations Center to verify the test results.
- Testing phase window closes prior to test completion by school.

Testing Completion Clean Up

In order to begin the production phase, all test data must be removed from the participating school’s systems. Before submission of production data, schools should ensure that files are sent using the proper production message classes and production destination mailbox.

Test Data

The Test Data section explains test data requirements for Phase II-Structure Application Testing. More detail about the test cases can be found in the Full Participant Test Cases and Phase-In Participant Test Cases documents located in Volume 7 of the 2004-2005 COD Technical Reference.

Full Participant Common Record Test Data

Full Participants are schools that will be processing in the 2004-2005 Award Year using the Common Record in XML format. Schools that have elected to participate in this manner of testing use the Common Record Layout in Volume 2 of the 2004-2005 COD Technical Reference.

COD provides actual CPS test data via an ISIR file to each participating school. Each school processes the ISIR data that COD provides and generates student award transactions using its normal awarding process. Schools are required to send this file to COD using the normal SAIG processing protocols with the exception of the school testing message classes and the COD school testing destination mailbox, which will be provided during a school setup meeting.

Upon submission of each test file, a school receives a “Receipt” file confirming that the file has been received by COD and is in a readable XML format. Once the data has been processed, schools receive a response file indicating the results of each record submitted. If a record rejects, the response record indicates which data element(s) have rejected. Rejected records can then be corrected and resubmitted.

The anticipated time from record submission to receipt of a response file is approximately two business days.

Phase-In Participant Test Data

Phase-In participants are schools that will continue to use flat fixed-length files to submit data and to receive responses from COD. The record layouts to be used by Phase-In Participants for 2004-2005 are in Volume 3 and Volume 4 of the 2004-2005 COD Technical Reference. For these schools, there should be no significant change in business processes other than a few minor adjustments to the 2004-2005 record formats.

COD provides actual CPS test data via an ISIR file to each participating school. Each school processes the COD provided ISIR data and generates origination and disbursement transactions using its normal process. Schools submit their test files to COD using the normal SAIG processing protocols with the exception of sending the specified Phase-In School Testing message classes and using the specified COD School Testing mailbox destination, which will be provided during the school setup meeting.

Once COD has processed the data for the school, a Response file is generated and translated to the appropriate fix-length acknowledgement file. The acknowledgement is sent back indicating the results of each record submitted. If a record rejects, the acknowledgement provides a reject reason. If the expected results were not intended to be a rejected record, schools can correct and resubmit the rejected records.

The anticipated time from record submission to receipt of an acknowledgement file is approximately two business days for the purposes of testing.

Testing Message Classes

Full Participant Schools

Common Record message classes are year specific and are to be used from year to year in the production environment. However, different test message classes must be used for testing. During Phase II testing, schools use the following message classes when sending in Common Records for testing:

Common Record Test Message Classes for Full Participants

Common Record Test Message Classes	
Common Record Documents sent from school to COD	CRTESTIN
Receipts and Responses sent from COD to school	CRTESTOP

Phase-In Participant Schools

Phase-In message classes continue to be year specific. However, different test message classes must be used for testing than for production. During Phase II testing, phase-in schools use the following message classes for testing:

Direct Loan Test Message Classes for Phase-In Participants

Direct Loan Phase-In Test Message Classes	
Origination	
Full Subsidized/Unsubsidized Loan Origination Record	DTSF05IN
Full Loan Origination Acknowledgement	DTOD05OP
Change	
Origination Change Record	DTSC05IN
Origination Change Acknowledgement	DTOC05OP
Disbursement	
Disbursement Record	DTSD05IN
Disbursement Acknowledgement	DTOD05OP
Booking Notification	DTOD05OP

Pell Test Message Classes for Phase-In Participants

Pell Phase-In Test Message Classes	
Origination Records	PTOR05IN
Origination Acknowledgment	PTOA05OP
Disbursement Records	PTDR05IN
Disbursement Acknowledgement	PTDA05OP

School Testing Signup Process

Schools register for testing by completing the Signup Document located at the end of this School Testing Guide and submitting it to the COD School Relations Center. Once the school has submitted the Signup Document, the COD School Relations Center will contact the school via email to obtain school-specific information and to schedule specific test dates for the school. The COD School Relations Center will also conduct testing readiness calls to provide additional information such as the testing Routing Number to be used by the school for the phase of testing.

Note: Upon receipt of the signup document, the COD team must complete a considerable setup process to establish the school in the COD test environment before testing can begin. This process can take up to several weeks to complete. Schools should take this setup process into account when planning to participate in COD School Testing and provide enough lead-time in their schedule. Schools are signed up on a first come first serve basis. Please take this into account when planning your testing schedule.

The COD School Relations Center can be contacted by dialing either the Pell number 1-800-474-7268 or the Direct Loan number 1-800-848-0978. When calling, ask for COD School Testing Support, or send email at CODsupport@acs-inc.com with the subject line COD School Testing Support.

Contact Names

Each school participating in testing notifies the COD School Relations Center of their designated contact person on the testing signup document. The contact person should be consistent for the period of time before, during, and upon completion of the test. The testing process likely involves a technical resource within the financial aid office. This person should be a technically oriented staff member who is very knowledgeable about the school's financial aid system. This person should be available to assist in problem analysis and to coordinate any follow-up tests that may be required. If a school uses a third-party servicer and the servicer is conducting the test on behalf of the school, COD needs the name and telephone number of the servicer contact person.

Scheduling

The School Testing Signup Document must be completed and emailed to the COD School Relations Center by the appropriate deadlines shown below:

Testing Phase	Testing Phase Description	Sign Up Deadline	Who can Participate
Phase I	Common Record Manual Verification Testing	05/01/2004	Full-Participants Only
Phase II	Structured Application Testing	05/01/2004	All

When a school completes the School Testing Signup Document, the school is contacted by the COD School Relations Center to schedule testing dates within each phase of testing. The time frames for each phase of testing is shown below:

Testing Phase	Testing Phase Description	Start Date	End Date
Phase I	Common Record Manual Verification Testing	January 2004	May 31, 2004
Phase II	Structured Application Testing	March 2004	June 30, 2004

Support Services

While a school is going through the testing, there are many support sources available for assistance, as listed below:

School Support Services		
Support Service	For Information on the Following:	Contact
School Testing Signup	Registering for School Testing.	Contact COD School Relations Center
ISIR Data Issues	Problems with ISIR data only.	Contact CPS/WAN Customer Service
SAIG	Issues concerning connectivity to SAIG only.	Contact CPS/WAN Customer Service
COD Processing	Issues concerning all items related to Pell and DL processing only.	Contact COD School Relations Center
School Testing Issues	Issues concerning all items related to COD School Testing only.	Contact COD School Relations Center

		Center
School Testing Results	To obtain or report School Testing results for COD School Structured Testing only.	Contact COD School Relations Center

Resource Planning

Hardware/Software

Schools should have all hardware and software capabilities ready before testing. Each school should have all upgrades installed from vendors or regulatory releases for 2004-2005.

Roles and Responsibilities

In order for Schools Testing to be completed successfully, it requires a collaborative effort between the participating schools and the COD School Relations Center. The expected roles and responsibilities of each entity are described below:

Schools, Vendors, and Third-party Servicers

Schools are responsible for completing the following steps associated with COD School Testing:

- Review all COD School Testing documentation posted on the IFAP web site.
- Review the COD Implementation Guide in the COD Technical Reference.
- Review all documentation that is emailed to the participating school (if applicable).
- Schedule testing dates with the COD School Relations Center using the signup document via email.
- Prepare a test environment for COD School Testing that uses the test destination mailbox, test message classes, and the test Routing ID.
- Ensure test environment allows forward dating capabilities.

- Prepare test data to execute the Structured COD School Testing scripts for submissions.
- Receive a technical readiness email from the COD School Relations Center after scheduling testing dates for each testing phase.
- Send the test data to COD via the SAIG.
- Retrieve receipts and responses from COD via the SAIG (Full Participants).
- Retrieve acknowledgments from COD via the SAIG (Phase-In Participants).
- Process submitted receipts (Full Participating Schools).
- Process responses/acknowledgments.
- Communicate results with the COD School Relations Center.
- Remove all data used for testing when completed from the school and/or vendor environment.
Note: Do not use real student data or production data during any phase of testing. Utilize the student data provided in the ISIR provided by COD.

COD School Relations Center

The COD School Relations Center provides the following support during testing:

- Provide and process School Testing Signup documents.
- Schedule specific test dates for schools.
- Conduct technical readiness calls with Schools.
- Provide third-party servicers/vendors with their own Testing COD Routing ID to use only during school testing.
- Process submitted data.
- Send receipts and responses (for Full Participates) via the SAIG.

- Send acknowledgments (for Phase-In Participates) via the SAIG.
- Update schools/vendors of their testing status.
- Assist with issue identification and resolution.
- Provide testing technical guidance.

Lessons Learned from 2003-2004

Schools and vendors that participated in COD School Testing for 2003-2004 provided COD with feedback on their experience. The following sections provide you with insight as to what schools/vendors should test, how to prepare and, and how to schedule testing within your institution.

Should I participate in School Testing?

- All software vendors are encouraged to test their software with the COD System prior to submitting production data.
- Schools that use homegrown or mainframe systems are encouraged to test.
- EDEExpress users do not need to test with the COD System. FSA ensures that EDEExpress is extensively tested each year with COD prior to its annual release(s) to the schools.
- Schools are encouraged to contact their software vendor to discuss their test plans and results. Schools who use a software vendor product do not need to test with the COD System as most software vendors test with COD on their schools behalf's. This helps minimize the need for schools to retest with COD.
- New schools to Title IV Financial Aid, that are not using ED Express, are encouraged to test with COD.

How do I prepare for School Testing?

Before you begin testing, schools should:

- Establish a separate testing environment to keep production data separate from their testing data. Production operations of prior award years and COD School Testing need to be able to occur in parallel without interference.
- Complete all of their development and internal unit testing
- Compare test output files against the published COD Technical Reference and schemas.

- Signup for testing in advance and allow at least three (3) weeks of setup time before you are able to begin testing. COD has considerable setup work to set-up each testing participant to ensure a successful test.
- Identify a strategy for loading fictitious test students several weeks prior to the start of testing. Schools can either manually enter the fictitious test students into their testing environment or accept the simulated CPS ISIR file provided by COD.
- Review the COD Technical Reference and understand the COD process for Pell Grants and Direct Loans.

What can I expect during School Testing?

- Plan to test and start early in the testing window. Do not wait till the end of the testing window to signup or begin testing. Allow and plan time for retesting with the COD system.
- Plan and allow time to encounter issues and errors and expect time delays during the resolution process.
- Schools should be very careful to send test files to the correct SAIG mailbox and to use the correct SAIG testing message classes to avoid problems with accidentally submitting data to the COD production environment. Schools that use EDconnect should ensure that they select the correct test message class and not the production message class.
- Proactively contact COD School Relations to resolve issues, provide testing status, and answer questions during the testing process. Schools may experience delays in the testing process while issues are identified, researched, and resolved.
- Communicate to the COD School Relations Center when the school has satisfactorily completed school testing or chooses to discontinue school testing.

School Testing Signup Document

On the following page you will find the School Testing Signup Document. This document should be completed to the best of your ability upon submission to the COD School Relations Center. The completed document should be sent to the COD School Relations Center.

Send the completed document to COD School Relations at:

- Email: CODSupport@acs-inc.com, subject of “School Testing Signup”
- Fax: 1-877-623-5082

Definitions of terms in the signup document and what information should be contained in them are listed below.

Field Name	Definition
Organization	This is the name of a third-party servicer, or software vendor. List your name here.
School Name	If you are a school list your name here.
COD Routing ID	If you intend to test using the Common Record in XML format, otherwise known as a Full Participant, enter your Routing ID here. If you are unaware of your Routing ID, you can find this information on the COD web site, www.cod.ed.gov , or contact the COD School Relations Center.
OPE ID	If you intend to test using the flat fixed-length file, otherwise known as a Phase-In participant; enter your OPE ID here.
Desired Test Phase	Select the phase of testing that you want to complete, Phase I and/or Phase II.
Mainframe	If you are a school, indicate if you use a mainframe system to submit records to COD.
Vendor Product Used	If you are a school, indicate the vendor product/software type you use to

	submit records to COD.
Organization Type	Indicate if you are a school, software vendor, or third-party servicer.
Testing TG Mailbox #	Enter the TG mailbox number of the mailbox you will be transmitting your test files to and from.
Contact Info (Name, Phone, Email)	Enter the contact information of the person who will be working with the COD School Testing personnel.
Reporting School	Enter the name of the school that will be submitting the records to COD.
Attending School	If it is different from the reporting school, enter the name of the school where student attends class.
Funding Type	If you are a school enter the funding type here. This would be Advanced, Pushed Cash, Cash Monitoring I, Cash Monitoring II, or Reimbursement.
Expected Testing Readiness Date	The date when you will be ready to begin the School Testing process.



COD School Testing 2004-2005 Signup Document

Please complete and send to **CODSupport@acs-inc.com** or Fax to (877) 623-5082

Please allow up to three weeks for the signup and set-up processes prior to testing.

Please allow sufficient time for re-testing to meet your specific testing needs.

Date Submitted: _____

Organization: _____

School Name (If Applicable) _____

COD Routing ID (Full Participant Only): _____

OPE ID #(Phase-In Only): _____

Aid Programs (Check all applicable for your test)	() Campus Based	() Pell Grant	() Direct Loan
Desired Test Phase	() Full Participant (Phase I/II) () Phase-In (Phase II)	() Full Participant (Phase I/II) () Phase-In (Phase II)	() Full Participant (Phase I/II) () Phase-In (Phase II)
Mainframe	() Yes () No	() Yes () No	() Yes () No
Vendor Product Used (if applicable)	() Yes () No	() Yes () No	() Yes () No
Organization Type (check all applicable)	() School () Vendor () Servicer	() School () Vendor () Servicer	() School () Vendor () Servicer
Testing TG Mailbox #:			
Contact Person (Last, First):			
Contact Phone Number:			
Contact Email Address:			
Additional Contact Info:			
Reporting School ID:			
Attending School ID:			
Funding Type:			
Expected Testing Readiness Date:			